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NATURALIST NOTEBOOK

JANUARY 1969

VOLUME IV

NO. 1

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Front Cover: Glaucous-winged Gull
by W. Gray — From this month's
Audubon Wildlife Film.

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ACTIVITIES FOR JANUARY

.....Inside Back cover.

Published by the

THAMES SCIENCE CENTER

622 Williams Street
New London, Connecticut 06320

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JOHN F. GARDNER--*Executive Director*
ROBERT C. DEWIRE--*Naturalist*
MICHAEL WALKER--*Curator*

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The Thames Science Center is a nonprofit organization seeking a quality environment through education.

The active support of children and adults in the Science Center, its programs, activities and efforts is earnestly solicited.

John F. Gardner
Editor

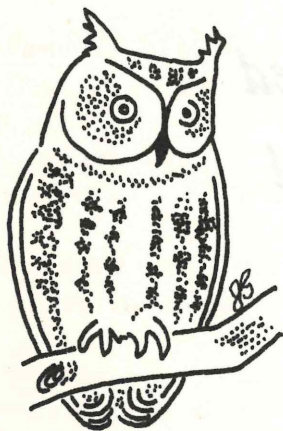
— YOUR MEMBERSHIP HELPS SUPPORT AND MAINTAIN —

The Interpretive Museum of 622 Williams Street, New London, Connecticut 06320
The Peace Sanctuary Nature Preserve At 200 River Road, Mystic, Connecticut 06355

January

the month of owls...

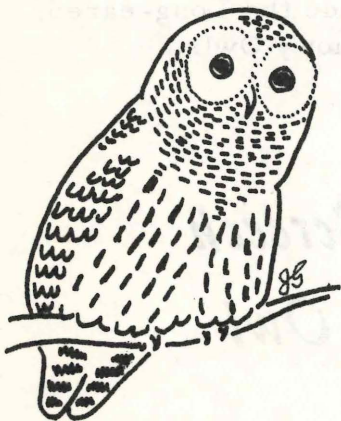
January is the month of owls. This is one of the best times to look for these hunters of the night. The three owls that are here all summer--the Screech, Barred, and Great Horned--are now joined by several other species that have migrated down from the North in search of food. These include the Long-eared, Short-eared, Saw-whet, and Snowy Owls.



*Screech
Owl*

The best single place to look for owls in January is a pine grove. Long-eared, Saw-whet, Great Horned, Barred, and Screech Owls will roost by day in the darkness of a grove and then hunt by night. You must look carefully, however, because they are very difficult to see.

Owls like to sit on a horizontal branch close against the trunk of the tree and with just a quick look you might think it's only a bump on the tree. A good way to discover these birds is to look for owl pellets under the trees. These pellets are balls of fur and bones that are thrown up by the owl after he has swallowed the animal whole. Where there are several of these pellets under a tree, look up into the tree very carefully and you should find the owl.



Barred Owl

Large open fields and sandy beaches are the habitat of the Short-eared and Snowy Owls who like to sit on poles or grass hummocks. Both of these are active in the daytime looking like giant moths as they fly low over the fields and beaches searching for food.

Any owls that are discovered should be reported to the Center as we want to keep a record of these scarce birds.

January's Calendar

This year we will present the calendar to you a little differently. All the events that we note here, with the exception of astronomical ones, took place exactly one year ago on that day as reported in the Field Notes. Using this calendar, you will be able to see if this year, the various events such as flowering and migrant dates occur earlier, later, or the same as last year. We hope this will make the monthly column more interesting to you.

January 1... New Year's Day.

January 1-8... The latest sunrises - 7:13 A.M.

January 3... Full Moon called the Wolf Moon.

January 7... The Bald Eagle seen along the mouth of the Conn. River.

January 10... Pussy-willows in flower.

January 11... Rough-legged Hawks winter around Great Island in Lyme.

January 15... Watch for deer tracks in the snow in areas such as Rocky Neck.

January 18... Bright red berries of barberry and bittersweet still remain on bare branches.

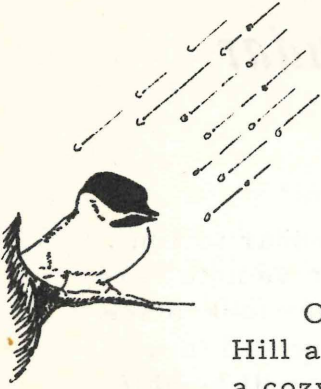
January 21... Snowy Owls seen along our beaches.

January 27... Black-crowned Night Herons roost along small open streams.

January 31... Ever green ferns - polypody and Christmas grow on rocky hillsides.

Tales From Pequot Hill*

by TRUDY GARDNER

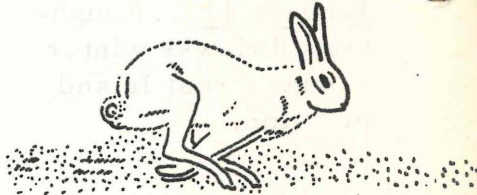


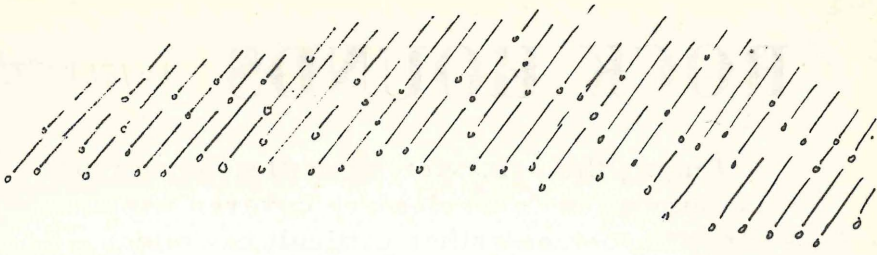
One very cold winter day on Pequot Hill a little chickadee was looking for a cozy home out of the icy snow and wintery storm.

He saw many bushes and trees, but they were so bare. They would not make a very good shelter from the cold for him. So he flew and flew nearly giving up any hope at all of finding a place to stay. Then he saw a grove of hemlock trees.

This was just what he was looking for. He could take shelter in the dark green branches. The branches looked like leafy arms reaching to the ground. No wonder the Indians had called the hemlock "Oh-Neh-Tah" which means greens on stick, for in this wintery world the hemlock was truly a green stick - a place of shelter.

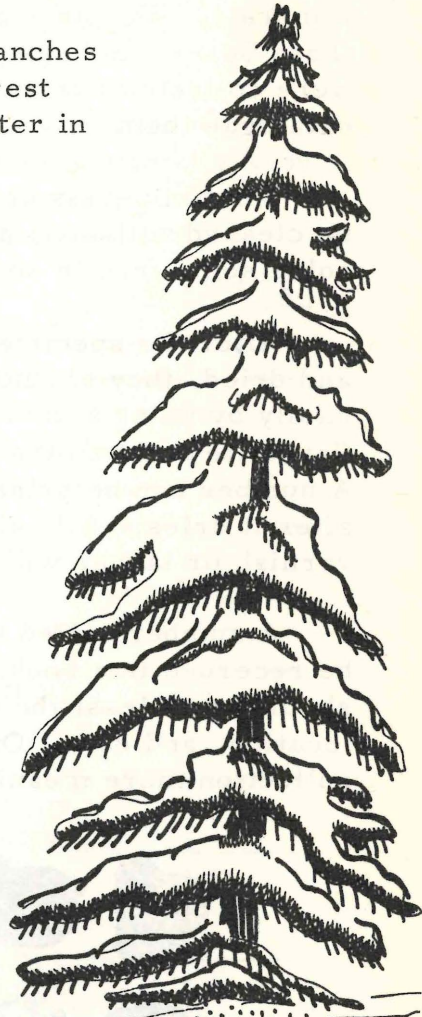
When the chickadee flew into the hemlock he saw the tree was covered with cones. This would take care of his worry about finding food during the storm.





After he flew into the deep branches of the tree, he met some other forest friends. They also had taken shelter in the tent of leaves. He saw the white-footed mouse and a little brown rabbit. Friend squirrel was also there. They were happy to have found such a nice cozy home with food so close at hand. Through the storm each stayed deep in the boughs, protected and sheltered from wind and snow.

When the snow was over the little chickadee hopped out into the sunlight. Bidding farewell to his shelter with a brisk "Chick-a-dee-dee" he flew off to find sunflower seeds at his favorite feeder.



*Pequot Hill is the name given to the area around which Mrs. Gardner makes her home.

ROCK HOUNDS

by JERRY THEILER

During the cold winter months, when most mine dumps and quarries are covered with snow, it becomes rather difficult to collect minerals. This is a perfect time to dig out those boxes and bags of rocks and minerals that were collected during the year and to clean and catalogue them.

Most minerals collected in this area can be cleaned with soap and hot water (this will dissolve some fragile southwestern minerals.)

After the specimens are thoroughly cleaned and dried, they should be marked. This is done easily by using a paint brush, or Q-tip and touching flat white paint on the bottom side of the sample. A number can be printed (in ink) on the white spot after it dries. A final covering of nail polish, varnish or laquer will keep the ink from rubbing off.

A number called a reference number should then be recorded in a book. Along with this number should be at least the mineral name, collecting location, and date. Other information making the collection more meaningful to you can also be added.

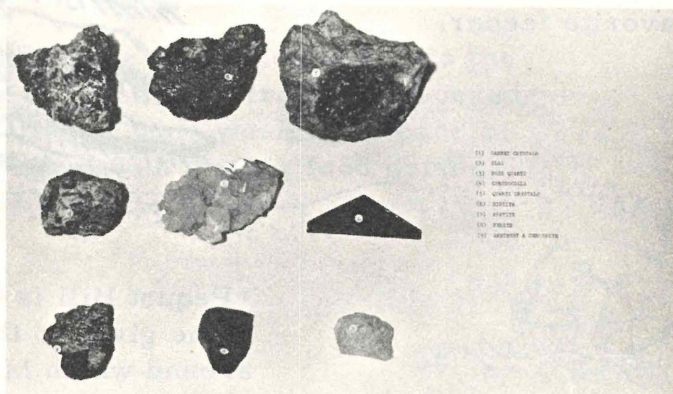
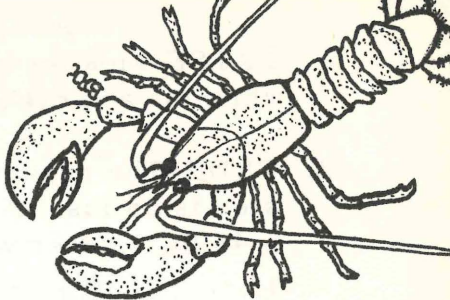


Photo by Joan Walker

ALONG THE SHORE

by BARBARA KASHANSKI



FACT or FANCY

Most everyone likes to eat the East Coast or American Lobster, but how much do you really know about this delicious sea animal? Let's find out! Score yourself on the following true - false quiz.

	<u>TRUE</u>	<u>FALSE</u>
1. Lobsters are more active during the day than at night.		
2. Some American lobsters have weighed up to 30 pounds.		
3. The larger the lobster, the tougher the meat.		
4. The two large claws are made differently.		
5. The lobster lays eggs every other year.		
6. Young lobsters molt or shed their hard covering as many as 14 times the first year.		
7. A new shell forms under the old one before the lobster molts.		
8. Lobsters usually go to deep water in summer and shallower waters in the fall.		
9. The record number of eggs from a lobster is about 97,000.		
10. Only about 10% of the eggs that hatch will live to be a year old.		

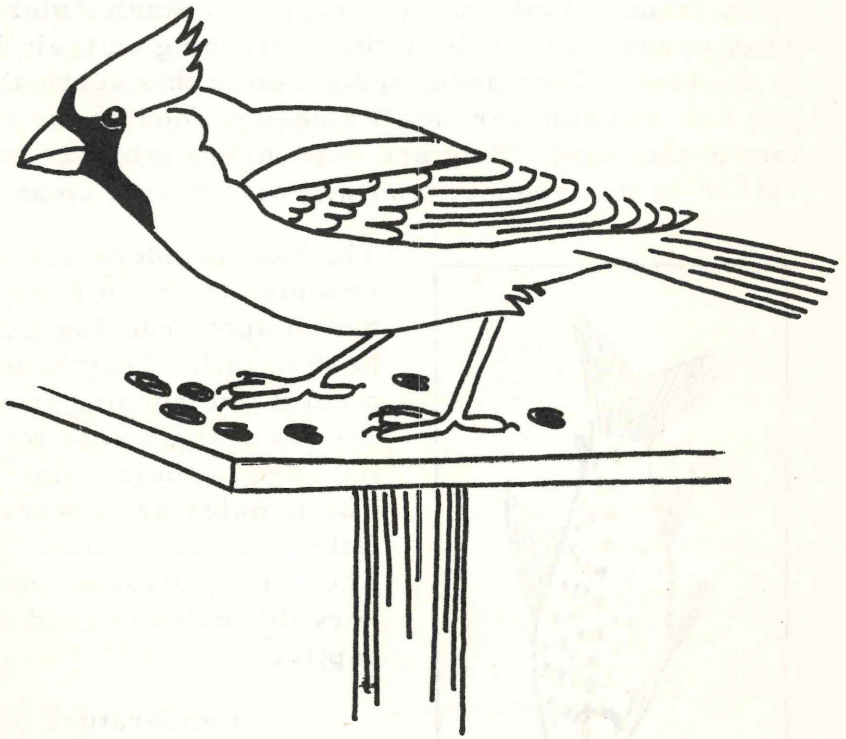
SCORING: All correct - excellent; 8 - very good; 6 - fairly good; 4 - fair; below 4 - either you've never met or dislike lobster.

ANSWERS

1. FALSE-Most crustaceans, which include lobsters, shrimps and crabs, are more active at night.
2. TRUE-The record for the largest East Coast lobster is 35 lbs. Another unofficial source claims a 43 lb. lobster was caught.
3. FALSE-The size is not an indication of quality. Very-large lobsters are still sweet and tender.
4. TRUE-One claw has fine sharp teeth for catching food; the other has rounded teeth for crushing food.
5. TRUE-The incubation period for lobster eggs is between 10 and 11 months. The female carries the eggs on her abdominal legs until hatching time. Therefore there is not time to have eggs every year.
6. TRUE-Although there seems to be varying opinions on the number of times a lobster molts the first year, most sources indicate about 14 times and as many as 17 times.
7. TRUE-The new shell has formed before the old shell is cast off and becomes fairly hard in the first 24 hours.
8. FALSE-It is just the opposite. Lobsters move to deep water in the fall and shallow water in the summer.
9. TRUE-The exact record is 97,440 and I'm glad I didn't have to count them! An eight inch lobster can produce as many as 5,000 eggs; a fourteen inch lobster as many as 40,000.
10. FALSE-Only about 1/10 of 1% live to reach the age of one month. The chief enemies of young lobsters are fish, other sea animals, man and the weather.

YOUR OWN PAGE....

A Cardinal For You To Color



THIS IS THE CARDINAL. WE WILL MAKE THIS BIRD THE FATHER BY COLORING HIM BRIGHT RED. THE MOTHER WOULD BE BROWN INSTEAD. WATCH FOR THIS BIRD AT YOUR FEEDING STATION.

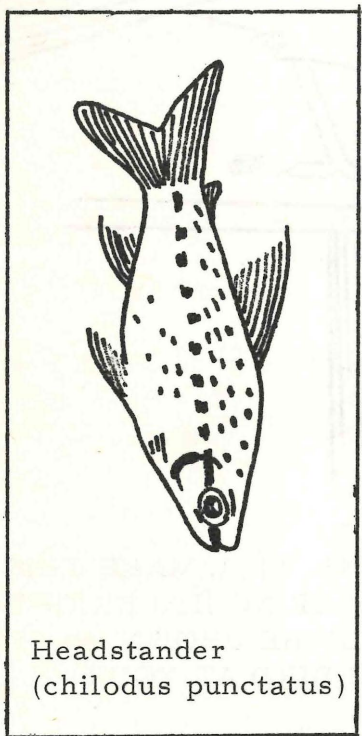
PET CORNER

by DAVE RICHARDS

The Headstanders

If you are an avid aquarist and are uncertain which tropical fish you should buy with your Christmas money, the Headstander would be a pleasing choice!

The Headstanders (*Chilodus Punctatus*) originally came from Guiana and the Amazon of South America. They spend most of their time "standing on their heads" in the tank. They swim and hover in this vertical position and hunt for small pieces of food on the bottom of the tank. They are scavengers (similar to catfish in this respect) and will help keep a clean tank.



Headstander
(*chilodus punctatus*)

The Headstanders are a greenish tint with rows of brown spots running from head to tail. They have a solid line running from the tip of their nose to the edge of their gills. The females are always fatter than the males. They are egglayers and very difficult to breed in captivity.

The temperature of their tank should be kept at about 80° F. Although the Headstanders occasionally fight among themselves, they are very peaceful with other species. They certainly are an excellent addition to your community tank.



FROM THE EXECUTIVE DIRECTOR'S DESK

We welcome notice of Conservation activities or problems for inclusion in this section of the Naturalist's Notebook. . . . Please let us know of your local activity so that others may be aware of your efforts and lend their support where possible. . . .

ENDANGERED NO MORE... The Trumpeter Swan--heaviest bird in the United States--has now been dropped from the endangered species list. Once one of this country's rarest birds (in 1932 there were only 69 left) it has now grown in number to between 4,000 and 5,000.

A NEW USE FOR USED TIRES... Scientists have found a use for the millions of old tires discarded by the public. By heating them to high temperatures in a closed vessel they break down and the scientists have been able to obtain large quantities of chemicals, oil liquids, gas, and tar. The gas was comparable in heating value to natural gas.

PUTTING YOUR BACK FEET IN FRONT... There are three animals whose back feet actually touch the ground in front of their forefeet when they are running at top speed. These animals are the rabbit, greyhound and cheetah.

WILDERNESS AREAS... The United States has 64 separate wilderness areas, (44,000 square miles) equal to the combined size of Maine, New Hampshire and Connecticut or one per cent of our total area.

THE COTTRELL MARSH... The Connecticut Chapter of the Nature Conservancy has purchased a beautiful 35-acre salt water tidal marsh along with 15 acres of adjacent woodland. The property is located in Mystic on the east side of the river just south of the railroad tracks. It is a marsh untouched by human development and with Connecticut's coastal marshes as rare as they are, it is imperative that this one be saved. The purchase price of the 50-acre property is \$60,000 of which the Conservancy now has \$40,000. Anyone wishing to help toward this purchase should write to: Mr. Charles Clark, Conn. Chapter Chairman, 151 Brookdale Rd., Stamford, Conn. 06903.

AUDUBON WILDLIFE FILM... The third program in our series will be held on Sunday, January 26th at 3:00 P.M. at Clarke Center, Mitchell College. Mr. Wilfred E. Gray will present his film "Four Seasons" which will portray a year in British Columbia. Guest tickets will be available at the door.

NEW BOOK TO BE PUBLISHED... Science Center Executive Director John Gardner is the author of a new book to be released in January. It is entitled A Junior Naturalist's Workbook and is written for children in Grades 3, 4, 5 and 6. It contains many interesting science projects and investigations that the child can do on his or her own. Some of these have appeared as the "Junior Naturalist Notebook" insert of our Newsletter. Copies will be available, personally autographed, at the Center. Mr. Gardner's first book, A Book Of Nature Activities is also on sale here at 50¢ each.

CHRISTMAS COUNT... The two local Christmas Bird Counts had not been taken when this Newsletter went to press. The final totals of both the New London and Lyme-Saybrook counts will appear in the February Newsletter.

INTERESTED IN REPTILES AND AMPHIBIANS???

There is a new nature organization forming in Connecticut called the Connecticut Herpetological Society. The young society will dedicate itself to promoting wider public understanding of the nature of reptiles and amphibians and will actively work for the preservation of these animals in Connecticut. In addition, the organization will assist professional herpetologists who are beginning a study which will lead to the publication of a book on Connecticut's Reptiles and Amphibians. The Society will meet on January 10th at 7:30 P.M. at the Children's Museum in West Hartford. Interested persons in this area are cordially invited to join Mr. Walker, the Center's curator, at this meeting. Call the Center for further details.

Help Us To Grow And Develop – Invite A Friend To Become A Member.

THAMES SCIENCE CENTER

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| <input type="checkbox"/> A special gift toward support of the Science Center effort is included \$ _____ | |

*Please make checks payable to The Thames Science Center
Contributions are tax deductible*

CONNECTICUT CREATURES *by MIKE WALKER*

January days are bleak outside the Science Center. The winter wind has ripped away the last ragged leaves of fall and the woods in back of the building are bare and empty. Above the attic, branches rasp and grate against the roof as if Old Man Winter was determined to tear his way inside.

Our museum is a tiny island of warmth in this chilly world and there is an echo of summer in one corner of the room. There, in a large terrarium, a pair of green frogs is spending the winter. In the balmy weather inside his cage, the male frog rolls out his banjo-like croaks almost every day.

Outside, under many inches of mud at the bottom of ponds and streams, others of his kind are locked in the deep sleep of true hibernation.

The presence of two factors keeps the frogs in the museum alive, just as the absence of the same factors induced frogs outside to hibernate. One condition is warmth and the other is food. As the days grew cooler and insects became scarcer last October, the activity of the frogs outdoors began to slow down. After the first real frosts, it ceased altogether. Meanwhile, our green frogs in the museum continued to enjoy 75° days and a plentiful supply of worms and grubs. As long as both conditions continue, the animals probably will not hibernate at all.

As is the case with almost all amphibians, life begins for the green frog in the water. In our area green frogs usually emerge from hibernation in early April. Soon they gather at ponds, forest pools,

and quiet water areas of rivers and streams. It is at this time that the males are most vocal, and some breeding areas resound with their twangy calls.

The females lay their eggs, often as many as several hundred, in a large, floating, raft-like mass in the water. The embryos develop rapidly, and in less than two weeks the tiny tadpoles emerge. Over the summer they lose their external gills and begin to develop legs. During this time they feed on the tender parts of water plants.

Adult green frogs, up to $3\frac{1}{2}$ or 4 inches in length, are handsome animals. Their green backs are mottled with brown and black and their underparts are white. The adult male is distinguishable from the female by his yellow throat and large eardrums, just behind his eyes. In the male green frog, the eardrum is much larger than the eye; in the female it is about the same size as the eye.

Green frogs are almost always on the lookout for food and will snap up anything moving that seems small enough to swallow. Ours are particularly fond of night crawlers.

If the winter days are getting you down, come in and visit our green frogs. You'll find them in their own private plot of summer.

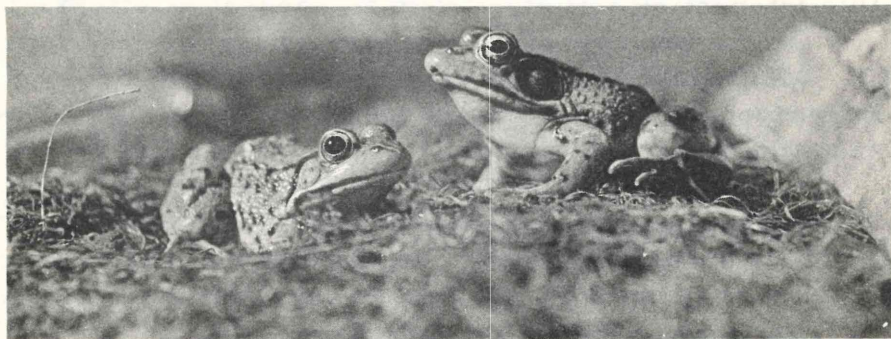


Photo by Joan Walker

Discovering Nature With Your Child

by JOHN GARDNER

January doesn't seem like the time of year when we can discover much about nature with our children unless we show them how wood burns and layers of clothing insulate.

Yet this is one of the best times of the year to discover one of the interesting things about trees, their buds. Trees set their spring leaf and flower buds early in the fall, even before the leaves have fallen.

When you and you child go out to examine buds on the trees look at them very carefully, possibly with a magnifier. Note the waxy covering that many of them have, or the overlapping scales present. These can be brown, red or green and are designed to protect the bud from loss of water during the winter.

If you send us a stamped, self-addressed envelope we will send along a little pamphlet called "Botany for Juniors - Examining winter twigs." This will tell you a little more about this interesting activity.

Meanwhile you might want to borrow one or more of these books from the library.

The Study of Trees made Simple
by Rutherford Platt

Fruit Key and Twig Key to Trees and Shrubs, by W. M. Harlow



FLOWER BUD
DOGWOOD



BEECH
Long narrow
buds



GREEN
TWIGS
SASSAFRAS

YOUR OWN NATURE JAUNT *by BOB DEWIRE*

TO YOUR OWN BACKYARD

Winter really closes in this month. A large snowfall may find you somewhat stranded in your home. On a day such as this, many pleasant hours may be spent looking out your window at an active and bustling feeding station. Whether you are located in the city or the country, you can attract many birds to feeders - especially during and immediately after a heavy snow.

There is no reason to put up a great number of feeders to attract the birds. You can get the birds just as regularly with about three feeders as with six more. About all a large number of feeders does is use up your seed supply faster as the blue jays and those squirrels with seemingly bottomless stomachs help themselves to the excess of seed.

For good results, the feeding station should first consist of a small hanging feeder filled only with sunflower seed for chickadees, nuthatches, and titmice. Secondly, there should be some kind of a platform feeder. It may be on a pole, hanging from a tree, or on a window. This will permit several birds to feed at one time and flocking birds such as goldfinches, evening grosbeaks, and purple finches will also use this. Both sunflower and mixed seed should be placed here because the various sparrows and juncos will leave the ground on snowy days and eat off this feeder. The third feeder should be one that holds suet or beef fat. Folded hardware

cloth, onion bags or logs with holes will attract the woodpeckers, chickadees, nuthatches and unfortunately, starlings. Last, but certainly not least, is the ground of your yard. Here should be thrown a generous supply of mixed or wild bird seed. The sunflower seed already in the mixed seed bag is enough without adding more. This will attract juncos, cardinals, doves and many species of sparrows.

An active feeding station can be a lot of fun and you can also conduct some studies of your own on days when bad weather keeps you inside. Here are some things you can try to find out:

- (1) The number of species at your station.
- (2) The number of individuals of each species using your station.
- (3) What time of day is the feeder most active?
- (4) What is the first bird to arrive in the morning?
- (5) What is the last bird to leave in the evening?
- (6) Decide which species use which feeders.
- (7) See if certain birds only come at certain time of the day.
- (8) When there is competition for food, which species keeps others away?

These and other things may be observed and will help pass the time and brighten a dreary day.



Photo by H. Gilman

FIELD NOTES

November 15 - December 15

Essex, Lyme and Niantic: A very late TURKEY VULTURE was flying over Seldon's Cove in Essex on Nov. 14th. SNOW BUNTINGS and LAPLAND LONG-SPURS have been reported throughout the period from the Great Island area in Old Lyme. Five PIED-BILLED GREBES were together at Groton's Pond on Nov. 28th. On the Niantic River on the 28th there was a raft of about 400 GREATER SCAUPS and smaller numbers of COMMON GOLDENEYES and HORNED GREBES.

New London and Waterford: The area's first heavy freeze came on Sunday, Dec. 8th and yet on Monday the 9th a little DANDELION managed to flower in the Arboretum. EVENING GROSBEAKS continue to be reported from all over the area. The flock that was at the Science Center left on Nov. 23rd. Fifty of these birds were banded by Mr. Dewire. PINE SISKENS are also still in the area, but the only report of a bird using a feeding station was from Oil Mill Road in Waterford on Nov. 19th. Other winter finches reported were a male PINE GROSBEAK near Magonk Point on Nov. 30th and a single REDPOLL at Magonk Point on Dec. 8th. These finches are reported as being numerous in Massachusetts, so they may still arrive down here before the winter is over. Any reports of Redpolls, Pine Grosbeaks or Crossbills should be reported to the Science Center at once.

A very late report of 3 BARN SWALLOWS sitting under the eave of a house on Shore Rd. in Waterford on Nov. 18th were probably young birds that had been raised there. Lack of real cold weather may be cited as a possible reason for their late stay (see Rhode Island region for other late swallows.)

Groton, Mystic and Stonington: A **LOGGERHEAD SHRIKE** was reported from Trumbull Airport on Dec. 1st. The heron roost at Groton Long Point had 14 **BLACK-CROWNED NIGHT HERONS** had 12 **GREAT BLUE HERONS** in it on the 1st. **RED-SHOULDERED HAWKS** - a bird that was seen only once or twice all year, suddenly became conspicuous by its presence rather than absence. Reports on the hawk came from Noank on Nov. 14th, the Peace Sanctuary on Nov. 17th, Stonington on Nov. 23rd and along Rt. 195 in Groton by the bridge approach on Dec. 10th. From the Peace Sanctuary came reports of a late **YELLOW-BELLIED SAPSUCKER** on Nov. 17th and a **CAROLINA WREN** on the 23rd. A dead adult **SAW-WHET OWL** was picked up at the Sanctuary on Dec. 11th. It was not the same bird reported on the Oct. Newsletter as it had no band. A **YELLOW-BREASTED CHAT** was seen in a backyard on Grove Avenue in Mystic on Nov. 24th. **BRANT** were at Barn Island on Nov. 23rd and a **KING RAIL** was clearly seen at Stone Acre Farm on the 24th. **COMMON GOLDENEYES** arrived in numbers on the Mystic River on Dec. 9th. A **SNOWY OWL** spent the Thanksgiving weekend on a farm on Jeremy Hill Road in North Stonington. A male **CANVASBACK** was seen on the Mystic River on Dec. 14th.

Rhode Island Shoreline: All late staying birds were reported from this region. A very late **COMMON TERN** was seen at Napatree Point on Nov. 23rd. At Galilee, R. I. there was a late **SNOWY EGRET** on Nov. 19th. Also on the same day there was a flock of 30 **TREE SWALLOWS** at Galilee and this number grew to a remarkable 75 birds on Nov. 30th!

Contributors to this column were: Mr. and Mrs. Kenneth Bates, Grace Bissell, Janet Boyd, Larry Brooks, Bob and Mary Jean Dewire, Trudy Gardner, Helen Gilman, Barbara Kashanski, Paul Spitzer, Mary Waldo and Nelson White.

ACTIVITIES FOR JANUARY

Jan. 4. 2:00 P.M. A field trip through the Peace Sanctuary to observe plants and animals of winter. Meet at the Sanctuary entrance on River Road.

Jan. 5. 2:00 P.M. FAMILY FILM FESTIVAL held in auditorium of Lyman Allyn Museum. Films will be "The Hidden World" and Walt Disney's "Water Birds." Members are admitted free. There is a 50¢ donation asked of non-members.

Jan. 11. All Day. An adult field trip to Falmouth and Wood's Hole areas of Cape Cod to observe wintering waterfowl. Phone the Center for details.

Jan. 18. 10:00 - 11:00 A.M. Junior Workshop for Grades 3, 4 and 5. Making a "Kitchen Garden" Limit of 15 children. Registration in advance Fee 50¢. Members only.

Jan. 25. 8:30 A.M. A Beach-buggy trip down Napatree Point for bird watching and beachcombing at the end of the point. Meet at the Watch Hill Parking Lot.

Jan. 26. 3:00 P.M. AUDUBON WILDLIFE FILM. Held at Clarke Center, Mitchell College. Mr. Wilfred Gray presenting "Four Seasons." Guest tickets available at the door.

THE THAMES SCIENCE CENTER

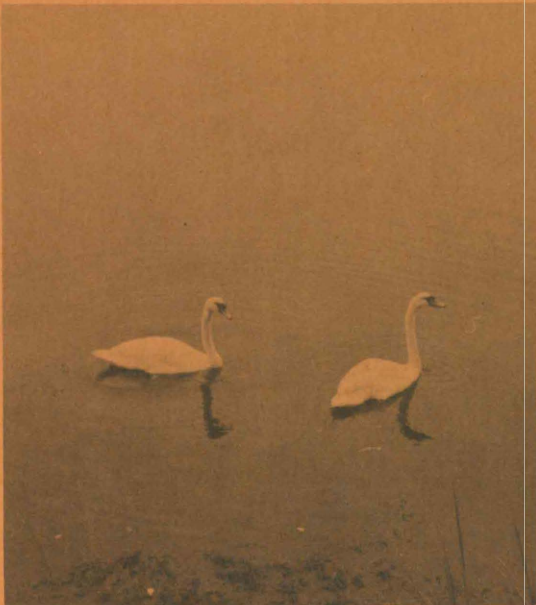
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